

B. Tech. sem. I C.S.B.S. winter 2019

**B. TECH. (COMPUTER SCIENCE & BUSINESS SYSTEMS) (CBCS - 2018
COURSE) B.Tech. (CSBS) Sem - I: WINTER- 2019
SUBJECT: FUNDAMENTALS OF COMPUTER SCIENCE (UE)**

Monday 25-11-2019
10:00 AM-01:00 PM



W-20423-2019
Max. Marks: 60

N.B.

- 1) All questions are **COMPULSORY**
- 2) Figures to right indicate **FULL** marks.
- 3) Draw neat and labelled diagram **WHEREVER** necessary.

Q.1 Explain significance of flowchart in problem solving? Describe the structure of flowchart with various notations. (10)

OR

Explain different types of operators in C with suitable examples.

Q.2 Explain following control structures with suitable example (10)
i) if --- else ---if ii) for loop iii) do ---- while loop

OR

- i) Write a program to check whether given year is leap or non – leap year
- ii) write a program for addition of 'n' numbers
e.g. 1+2+ +10 = 55

Q.3 Explain concept of Recursion in programming? Write a program for finding factorial of number using recursion. (10)

OR

Explain the significance of standard libraries in programming? Describe functions of following libraries

- i) Stdio.h ii) Conio.h iii) Math.h

Q.4 Explain concept of multidimensional array? Write a program to find smallest number in multidimensional array. (10)

OR

Write a program to swap two numbers using pointers and functions.

Q.5 What is importance of user defined datatypes? Differentiate between structures and unions with suitable example. (10)

OR

Write a short notes on:

- a) Array of structures
- b) Pointer of structures

Q.6 Explain Storage Allocator in Unix system interface. (10)

OR

Write a short note on

- a) User Defined Header
- b) User Defined Library functions

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